

## CLAIMS

1. A program development supporting apparatus for generating a program file executable on a predetermined program executing apparatus from a mixed language source program where a specific language source program is described in a predetermined area of a general-purpose source program, comprising:

5 a specific language compiling unit that compiles the specific language source program to create a specific language object code;

10 a general-purpose language compiling unit that compiles the general-purpose language source program of the mixed language source program to create a general-purpose language object code;

15 an integrated compiling unit that extracts the specific language source program from the mixed language source program, makes the specific language compiling unit execute by designating the extracted specific language source, makes the general-purpose language compiling unit execute by 20 designating the mixed language source program, and integrates the obtained specific language object code and the general-purpose language object code to create an object file; and

25 a linking unit that creates the program file from at least one object file created by the integrated compiling unit.

30 2. The program development supporting apparatus according to claim 1, wherein the integrated compiling unit adds code position information of at least one of the specific language object code and the general-purpose language object code.

3. The program development supporting apparatus according to claim 1, further comprising a program transferring unit that transfers the program file to the program executing apparatus.

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4. The program development supporting apparatus according to claim 3, further comprising a program executing apparatus controlling unit that gives an instruction to the program executing apparatus to execute the program file transferred to the program executing apparatus.

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5. The program development supporting apparatus according to claim 1, further comprising a breakpoint setting unit that sets a breakpoint in a statement in the mixed language source program, wherein

the execution of the program file is stopped at the breakpoint during the execution, a general-purpose language debugger is started up when the statement of the stopped program file belongs to the general-purpose language source program, and a specific language debugger is started up when the statement of the stopped program file belongs to the specific language source program.

25 6. The program development supporting apparatus according to claim 5, wherein debug information obtained from the general-purpose language debugger and the specific language debugger are displayed on a common window screen.

7. The program development supporting device according to 30 claim 1, wherein the general-purpose language is C language and the specific language source program is described in the general-purpose language source program by a preprocessor command in the general-purpose language source program.

8. The program development supporting apparatus according to claim 7, wherein the preprocessor command is "#pragma".

5 9. The program development supporting apparatus according to claim 1, wherein the program executing apparatus is a semiconductor test equipment.

10 10. A program executing apparatus that executes a program file where an object code of a general-purpose language source program and an object code of a specific language source program are present in a mixed manner, wherein

15 the object code of the general-purpose language source program and the object code of the specific language source program are loaded on a memory when an execution of the program file starts.

11. The program executing apparatus according to claim 10, wherein the program executing apparatus is a semiconductor test equipment.

20 12. A compiling method for generating a program file executable on a predetermined program executing apparatus from a mixed language source program where a specific language source program is described in a predetermined area of a general-purpose language source program, comprising:

25 a specific language source program extraction step of extracting the specific language source program from the mixed language source program;

30 a specific language compiling step of compiling the extracted specific language source program to create a specific language object code;

a general-purpose language compiling step of compiling

a description of the general-purpose language source program of the mixed language source program to create a general-purpose language object code;

5 an object file creation step of combining the specific language object code and the general-purpose language object code to create an object file; and

a linking step of creating the program file from at least one object file created by the object file creation.

10 13. A debugging method for debugging a program file executable on a predetermined program executing apparatus created from a mixed language source program where a specific language source program is described in a predetermined area of a general-purpose language source 15 program, comprising:

a breakpoint setting step of setting a breakpoint in a statement in the mixed language source program;

a debugger starting up step of stopping the program file at the breakpoint during execution of the program file, 20 starting up a general-purpose language debugger when the statement of the stopped program file belongs to the general-purpose language source program, and starting up a specific language debugger when the statement of the stopped program file belongs to the specific language source 25 program; and

a debug information display step of displaying debug information obtained from the general-purpose language debugger and the specific language debugger on a common window screen.

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14. A computer readable recording medium that records a program that makes a computer execute steps to create a program file executable on a predetermined program executing

apparatus from a mixed language source program where a specific source program is described in a predetermined area of a general-purpose language source program, the steps comprising:

- 5        a specific source program extraction step of extracting the specific language source program from the mixed language source program;
- a specific language compiling step of compiling the extracted specific language source program to create a
- 10      specific language object code;
- a general-purpose language compiling step of compiling a description of the general-purpose language source program from the mixed language source program to create a general-language object code;
- 15      an object file creation step of combining the specific language object code and the general-purpose language object code to create an object file; and
- a linking step of creating the program file from at least one object file created by the object file creation.

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- 15. A computer readable recording medium that records a program that makes a compute execute steps to debug a program file executable on a predetermined program executing apparatus created from a mixed language source program where a specific language source program is described in a predetermined area of a general-purpose language source program, the steps comprising:

- a breakpoint setting step of setting a breakpoint in a statement in the mixed language source program;
- 30      a debugger starting up step of stopping the program file at the breakpoint during execution of the program file, starting up a general -purpose language debugger when the statement of the stopped program file belongs to the

general-purpose language source program, and starting up a specific language debugger when the statement of the stopped program file belongs to the specific language source program; and

- 5 a debug information display step of displaying debug information obtained from the general-purpose language debugger and the specific language debugger on a common window screen.